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Article (Published Version)

Semrau, Maya, Alem, Atalay, Ayuso-Mateos, Jose L, Chisholm, Dan, Gureje, Oye, Hanlon, Charlotte, Jordans, Mark, Kigozi, Fred, Lund, Crick, Petersen, Inge, Shidhaye, Rahul and Thornicroft, Graham (2019) Strengthening mental health systems in low- and middle-income countries: recommendations from the Emerald programme. *BJPsych Open*, 5 (5). ISSN 2056-4724

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# Strengthening mental health systems in low- and middle-income countries: recommendations from the Emerald programme

Maya Semrau, Atalay Alem, Jose L. Ayuso-Mateos, Dan Chisholm, Oye Gureje, Charlotte Hanlon, Mark Jordans, Fred Kigozi, Crick Lund, Inge Petersen, Rahul Shidhaye and Graham Thornicroft

## Background

There is a large treatment gap for mental, neurological or substance use (MNS) disorders. The ‘Emerging mental health systems in low- and middle-income countries (LMICs)’ (Emerald) research programme attempted to identify strategies to work towards reducing this gap through the strengthening of mental health systems.

## Aims

To provide a set of proposed recommendations for mental health system strengthening in LMICs.

## Method

The Emerald programme was implemented in six LMICs in Africa and Asia (Ethiopia, India, Nepal, Nigeria, South Africa and Uganda) over a 5-year period (2012–2017), and aimed to improve mental health outcomes in the six countries by building capacity and generating evidence to enhance health system strengthening.

## Results

The proposed recommendations align closely with the World Health Organization’s key health system strengthening ‘building blocks’ of governance, financing, human resource development, service provision and information systems; knowledge transfer is included as an additional cross-cutting component. Specific recommendations are made in the paper for each of these

building blocks based on the body of data that were collected and analysed during Emerald.

## Conclusions

These recommendations are relevant not only to the six countries in which their evidential basis was generated, but to other LMICs as well; they may also be generalisable to other non-communicable diseases beyond MNS disorders.

## Declaration of interest

None.

## Keywords

Global mental health; health systems; health system strengthening; healthcare delivery.

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This paper proposes strategies for the strengthening of mental health systems in low- and middle-income countries (LMICs) that have arisen out of the work of the ‘Emerging mental health systems in LMICs’ (Emerald) research programme. The 5-year programme (2012–2017) aimed to improve mental health outcomes in six LMICs in Africa and Asia (Ethiopia, India, Nepal, Nigeria, South Africa and Uganda) by building capacity and generating evidence to enhance health system strengthening.<sup>1,2</sup> The research programme thereby worked towards improving mental healthcare in LMICs, and ultimately contributing to a reduction in the mental health treatment gap. This gap means that currently a large percentage of people with mental, neurological or substance use (MNS) disorders (generally around 75% in LMICs) do not receive any form of treatment or care for their MNS disorder, and an even greater number (up to 95% in LMICs) do not receive minimally adequate treatment.<sup>3–6</sup>

## Method

Emerald entailed the coordination of several components, which aligned closely with the World Health Organization’s (WHO’s) ‘building blocks’ for health system strengthening,<sup>7</sup> i.e. (a) governance; (b) mental health financing; (c) human resources for mental health system development; (d) service provision; and (e) mental health information systems; additionally, knowledge transfer was

included as a cross-cutting component. Recommendations from each of these components are outlined below. These are based on the body of data that were collected and analysed during Emerald, and which are presented in detail in the papers of this thematic series<sup>2,8–13</sup> and in other publications cited throughout this paper. The recommendations may be applicable beyond the six countries in which the evidence for them were collected, as well as to non-communicable diseases other than MNS disorders.

## Results

A summary of our recommendations is provided in Appendix 1. In addition, some practical pointers are listed in Appendix 2.

## Governance

Poor governance was identified as an important barrier to effective integration of mental healthcare within primary healthcare settings. To address this, the Emerald programme identified the following key governance strategies (see Petersen *et al*, Abdulmalik *et al*, Hanlon *et al*, Marais & Petersen, Mugisha *et al*, and Upadhaya *et al*<sup>14–19</sup> for further details): strengthening capacity of managers at subnational levels and/or policymakers at the national level to develop and implement integrated plans; strengthening key aspects of the essential health system building blocks to promote

responsiveness, efficiency and effectiveness; developing workable mechanisms for intersectoral collaboration, as well as community and patient engagement; and developing innovative approaches to improve mental health literacy and achieve stigma reduction. A recurring challenge for good governance is adequate financing, which can be addressed via evidence-based advocacy and budgetary re-prioritisation.

## Mental health financing

The Emerald programme showed that as part of effective planning, countries can benefit from undertaking an assessment of the human and financial resources needed to scale-up a package of evidence-based care and prevention strategies for priority MNS disorders. Emerald developed, tested and applied a new module for the OneHealth tool (see <http://www.avenirhealth.org/software-one-health.php>), to estimate the costs and health impact of mental health service scale-up in the six Emerald countries.<sup>20</sup> The findings were that costs of scale-up of key mental health services are modest in absolute terms (under US\$ 0.50 per head of population for psychosis, depression and epilepsy in Ethiopia, Nepal and Uganda), but with substantial anticipated improvements in health. However, these costs are still considerably in excess of current allocations because of low prioritisation to mental health.

Across the six diverse Emerald LMICs, a relatively consistent picture emerged – that there is limited financial risk protection for households affected by MNS disorders. Emerald's findings indicated that households living with an MNS disorder constitute a key vulnerable population, who have a high risk of chronic poverty and intergenerational poverty transmission, and who therefore require development assistance. Development efforts can target the 'upstream' determinants of mental health: violence, poverty, inadequate housing, unemployment, lack of basic amenities, poor education, experience of trauma and stigma; which can significantly reduce the risk of MNS disorders among those not yet affected and increase the ability to cope with financial hardships as a result of MNS disorders among those already affected. This could be implemented in the form of financial assistance such as disability grants or cash transfers for people living with an MNS disorder. It is also essential to improve access to mental healthcare, preferably delivered through primary care and community-based healthcare platforms, for example by including mental healthcare within universal health coverage plans.

In order to improve access to services and move towards universal health coverage for people with MNS disorders, greater financial protection needs to be given to individuals and households with MNS disorders, preferably through explicit inclusion of MNS disorders in ongoing national insurance schemes or programmes (see the paper by Chisholm *et al* in this thematic series<sup>9</sup>). Universal or social health insurance models offer the most promising avenues to achieve sustained resourcing for mental health, as well as improving the efficiency with which resources are used for mental health, by moving away from specialised care to primary healthcare services. There is a need for continued advocacy for mental health services to be included in the benefits packages under these social health insurance financing models, to increase the political will and tackle the low priority given to mental health.

## Human resources

In regard to human resources for mental health system development, the key findings from Emerald show that it is essential to expand access to integrated mental healthcare.<sup>21</sup> For this to happen, task-sharing of mental healthcare through training of general health workers needs to be augmented by interventions to empower and equip mental health patients and their caregivers.

This should be supplemented with capacity-building of service planners/managers and in-country researchers in LMICs in mental health system strengthening.<sup>22–26</sup> It is important for these capacity-building activities to be carefully planned and implemented, taking contextual variations into account; for this, situational analyses or needs assessments should be conducted in order to inform the capacity-building activities.<sup>23,27–29</sup> Governments and donors can facilitate human resource development by making involvement of patients/caregivers a requirement and by providing resources for capacity-building. It is also important to ensure that service managers and planners are equipped with good knowledge about mental health system strengthening and understand the importance of integration of mental health into primary healthcare, so that they can influence the thinking of frontline health workers in primary care settings and provide the necessary support for any integration efforts. Care providers in health institutions need to be equipped with good knowledge about mental health system strengthening too, to ensure that the actual actors in the care provision are included and to facilitate effective and efficient implementation.

Emerald developed models of best practice for training activities and research collaborations between the high-income countries (HICs) and LMICs. The programme highlighted the importance of appropriateness, reciprocity and sustainability within these collaborations, and that people in LMICs should drive the process of, and be equal partners in, any training activities. When funding multi-country research programmes, embedding PhD fellowships for LMIC researchers is an investment in the next generation of researchers from the global South. Emerald supported ten PhD students and two MSc students, who now have the potential to make important contributions to mental health systems research in LMICs through their PhD/MSc work and through their future activities. Furthermore, evaluation of capacity-building efforts is imperative but requires dedicated resources (see paper by Evans-Lacko *et al*<sup>8</sup> in this thematic series on how capacity-building efforts were evaluated within Emerald; see also Hanlon *et al*<sup>30</sup>).

## Service provision

Although great strides have been made in the development of policy and legislative frameworks that support integrated care, the Emerald programme found that the implementation of these mental health policies and plans remains a challenge, requiring technical support, such as manuals, standard operating procedures, 'Train the Trainer' technical support, and monitoring and evaluation using continuous quality improvement to embed integration.

The Emerald programme also found that the integration of mental health into primary healthcare (PHC) requires more than just technical (continued) training and structured supervision of healthcare providers in the required clinical skills (for example through the Mental Health Gap Action Programme (mhGAP)). This training needs to be accompanied by systems strengthening of all the basic building blocks of the PHC system to support integrated mental healthcare. This includes systems interventions to support integrated person-centred collaborative continuing care of chronic and multimorbid conditions at an organisational level. It also refers to the need for workforce preparedness interventions that include relational leadership skills, clinical communication skills and emotional coping skills (see paper in this thematic series by Petersen *et al*<sup>10</sup>). A clinical communication skills training module that promotes a person-centred approach was developed as part of Emerald and introduced into the national scale-up efforts in South Africa to support integrated mental healthcare into primary care services. It has also been adapted for use in Ethiopia as part

of the adaptation of integrated chronic care guidelines called the Practical Approach to Care Kit (PACK).<sup>31</sup>

Systems strengthening interventions to support integrated mental healthcare varied across the six Emerald countries depending on country needs but were found to improve patients' experience of overall chronic care across the countries. Furthermore, Emerald found that strengthening of the community platform is also important to promote intersectoral collaboration, mental health literacy, reduce stigma and empower patients and caregivers for support and self-care.

## Mental health information systems

In order to guide the process of scaling up of mental healthcare, a revised health management information system (HMIS) that includes mental health indicators is needed in LMICs.<sup>32,33</sup> Through a broad-based consensus building process that included a cross-country Delphi study and consultative workshops,<sup>34</sup> Emerald developed a set of indicators that can be used within the routine mental health information systems in LMICs to monitor the provision of mental health services in PHC (see Jordans *et al*'s paper<sup>11</sup> in this thematic series for the list of indicators and the evaluation of use of the indicators). With a limited set of indicators, Emerald aimed to assess 'effective coverage' including financial coverage, both of which are needed for the assessment of implementable universal health coverage.

The set of indicators, after a brief training of health workers, were introduced in practice. Emerald assessed its performance and perceived utility, finding mostly high and increasing levels of completeness and accuracy of data completion, even though some indicators fell behind in perceived utility. The results showed that it is feasible, useful and acceptable to use the indicators for routine monitoring of mental healthcare within existing HMIS in LMICs (see papers by Jordans *et al*<sup>11</sup> and Ahuja *et al*<sup>12</sup> in this thematic series for further details). We therefore propose these indicators to be considered for incorporation into existing health information systems, and adopted within the WHO mhGAP implementation strategy.

## Knowledge transfer

This has been included here as a cross-cutting component, which – although not one of the WHO's 'building blocks' for health system strengthening – we consider to be an important requirement within health system research. It is imperative that research evidence is communicated effectively and efficiently to a wide range of stakeholders, including those who may apply this information in practice to improve treatment and care. Knowledge transfer from research into policies and patient care could be accelerated by involving patients and carers. For effective communication of research results, there is a need for multiple dissemination strategies. This may include meetings with stakeholders such as advocacy meetings or community groups, websites, social media, leaflets, newsletters, policy briefs, research papers, conferences, annual reports, videos and press conferences and releases. The paper by Ayuso-Mateos *et al*<sup>13</sup> in this thematic series goes into further details on this, as well as the impact that the knowledge transfer efforts within Emerald had on mental health service delivery and policy planning within the six Emerald countries.

## Discussion

The Emerald programme created a rich body of evidence to inform proposed strategies for strengthening mental health systems in LMICs. This evidence was collected in six LMICs in Africa and

Asia, but has applicability beyond those countries to other LMICs and potentially to underresourced areas in HICs,<sup>35</sup> as well as to non-communicable diseases other than MNS disorders. Indeed, some of the tools developed during Emerald have already been successfully used in Zimbabwe (see Hendler *et al* and Kidia *et al*<sup>36,37</sup>), and we would encourage other countries to follow suit. The evidence collected during Emerald has resulted in a set of recommendations, which we hope will be useful in informing models of best practice not just in the six Emerald countries but also in other LMICs and possibly other HICs worldwide on how to enhance health systems so that services for people with MNS disorders are improved.

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First received 28 Aug 2018, final revision 31 Nov 2018, accepted 2 Dec 2018

## Funding

The research leading to these results was funded by the European Union's Seventh Framework Programme (FP7/2007–2013) under grant agreement n° 305968. The funder had no role in study design, data collection and analysis, decision to publish or preparation of the manuscript. G.T. is supported by the National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care (CLAHRC) South London and by the NIHR Applied Research Centre (ARC) at King's College London NHS Foundation Trust, and the NIHR Applied Research and the NIHR Asset Global Health Unit award. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care. G. T. receives support from the National Institute of Mental Health of the National Institutes of Health under award number R01MH100470 (Cobalt study). G.T. is supported by the UK Medical Research Council in relation the Emilia (MR/S001255/1) and Indigo Partnership (MR/R023697/1) awards. M.S. is supported by the NIHR Global Health Research Unit for Neglected Tropical Diseases at the Brighton and Sussex Medical School. D.C. is a staff member of the World Health Organization. The authors alone are responsible for the views expressed in this publication and they do not necessarily represent the decisions, policy or views of the World Health Organization. G.T., C.H., C.L., A.A. and I.P. are funded by the NIHR Global Health Research Unit on Health System Strengthening in Sub-Saharan Africa, King's College London (GHRU 16/136/54) using UK aid from the UK Government. The views expressed in this publication are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care. C.H. additionally receives support from AMARI as part of the DELTAS Africa Initiative (DEL-15-01).

## Acknowledgements

The partner organisations involved in Emerald were Addis Ababa University (AAU), Ethiopia; Butabika National Mental Hospital (BNH), Uganda; ARTTIC, Germany; HealthNet TPO, Netherlands; King's College London (KCL), UK; Public Health Foundation of India (PHFI), India; Transcultural Psychosocial Organization Nepal (TPO Nepal), Nepal; Universidad Autónoma de Madrid (UAM), Spain; University of Cape Town (UCT), South Africa; University of Ibadan (UI), Nigeria; University of KwaZulu-Natal (UKZN), South Africa; and World Health Organization (WHO), Switzerland. The Emerald programme was led by G.T. at KCL. The project coordination



group consisted of A.A. (AAU), J.L.A.-M. (UAM), D.C. (WHO), Dr Stefanie Fülöp (ARTTIC), O.G. (UI), C.H. (AAU), M.J. (TPO Nepal; KCL), F.K. (BNH), C.L. (UCT), I.P. (UKZN), R.S. (PHFI) and G.T. (KCL). Parts of the programme were also coordinated by Ms Shalini Ahuja (PHFI), Dr Jibril Omuya Abdulmalik (UI), Ms Kelly Davies (KCL), Ms Sumaiyah Docrat (UCT), Dr Catherine Egbe (UKZN), Dr Sara Evans-Lacko (KCL), Dr Margaret Heslin (KCL), Dr Dorothy Kizza (BNH), Dr Lola Kola (UI), Dr Heidi Lempp (KCL), Dr Pilar López (UAM), Ms Debra Marais (UKZN), Ms Blanca Mellor (UAM), Mr Durgadas Menon (PHFI), Dr James Mugisha (BNH), Ms Sharmishtha Nanda (PHFI), Dr Anita Patel (KCL), Ms Shoba Raja (BasicNeeds, India; KCL), Dr Maya Semrau (KCL), Mr Joshua Ssebunya (BNH), Mr Yomi Taiwo (UI), and Mr Nawaraj Upadhaya (TPO Nepal). The Emerald programme's scientific advisory board included A/Professor Susan Cleary (UCT), Professor Derege Kebede (WHO, Regional Office for Africa), Professor Harry Minas (University of Melbourne, Australia), Mr Patrick Onyango (TPO Uganda), Professor Jose Luis Salvador Carulla (University of Sydney, Australia), and Dr R. Thara (Schizophrenia Research Foundation (SCARF), India). The following individuals were members of the Emerald consortium: Dr Kazeem Adebayo (UI), Ms Jennifer Agha (KCL), Ms Ainali Aikaterini (WHO), Dr Gunilla Backman (London School of Hygiene and Tropical Medicine; KCL), Mr Piet Barnard (UCT), Dr Harriet Birabwa (BNH), Ms Erica Breuer (UCT), Mr Shveta Budhiraja (PHFI), Amit Chaturvedi (PHFI), Mr Daniel Chekol (AAU), Mr Naadir Daniels (UCT), Mr Bishwa Dunghana (TPO Nepal), Ms Gillian Hanslo (UCT), Ms Edith Kasinga (BNH), Ms Tasneem Kathree (UKZN), Mr Suraj Koirala (TPO Nepal), Professor Ivan Komproe (HealthNet TPO), Dr Mirja Koschorke (KCL), Mr Domenico Lalli (European Commission), Mr Nagendra Luitel (TPO Nepal), Dr David McDaid (KCL), Ms Immaculate Nantongo (BNH), Dr Sheila Ndyababangi (BNH), Dr Bibilola Oladeji (UI), Professor Vikram Patel (KCL), Ms Louise Pratt (KCL), Professor Martin Prince (KCL), Ms M. Miret (UAM), Ms Warda Sablay (UCT), Mr Bunmi Salako (UI), Dr Tatiana Taylor Salisbury (KCL), Dr Shekhar Saxena (WHO), Ms One Selohilwe (UKZN), Dr Ursula Stangel (GABO.m), Professor Mark Tomlinson (UCT), Dr Abebaw Fekadu (AAU) and Ms Elaine Webb (KCL).

## Appendix 1

### Summary of recommendations

- Governance:** poor governance needs to be addressed as a key barrier to the effective integration of mental healthcare.
- Mental health financing:** the mental health module of the OneHealth tool is useful to estimate the human and financial resources needed to scale-up a package of evidence-based care and prevention strategies for priority mental, neurological or substance use (MNS) disorders. Emerald's findings show that it is essential to improve access to services and move towards universal health coverage for people with MNS disorders; for this, greater financial protection needs to be given to individuals and households living with MNS disorders, preferably through explicit inclusion of MNS disorders in ongoing national insurance schemes or programmes, in particular social health insurance models and targeted poverty alleviation programmes.
- Human resources:** there needs to be capacity-building of mental health patients, caregivers, service planners/managers and researchers in low- and middle-income countries (LMICs) in mental health system strengthening. Training activities and collaborations should be carefully planned, implemented and evaluated, that emphasise appropriateness, reciprocity, sustainability and equality in partnerships; governments and/or donors need to make resources available for this.
- Service provision:** the scale-up of integrated mental healthcare into primary healthcare (PHC) in LMICs is far more complex than adding packages of care to existing PHC services. Leveraging existing health system processes that are synergistic with chronic care are important, as well as initiatives to strengthen some of the basic building blocks of the healthcare system to create a more enabling platform for integrated mental healthcare. Furthermore, community strengthening is important to promote empowering of patients and caregivers for support and self-care; and the implementation of mental health policies and plans requires technical support.
- Mental health information systems:** Emerald developed and evaluated a set of indicators (measuring treatment need, utilisation, quality and costs) that can be used within routine mental health information systems in LMICs to monitor the effective coverage of mental health services in PHC. These indicators

should be incorporated into existing health information systems, and adopted within the WHO Mental Health Gap Action Programme implementation strategy.

- Knowledge transfer:** research evidence should be communicated effectively and efficiently to a wide range of stakeholders, including those who may apply this information in practice to improve treatment and care, using a wide array of platforms suitable for the target audience.

## Appendix 2

### Practical pointers for mental health system strengthening in low- and middle-income countries

- Moving towards universal health coverage for people with MNS disorders requires consideration of the resources needed to scale-up services and also consideration of the fair and sustainable mechanisms for providing enhanced financial protection to affected households.
- Ensure that there is a strong focus on capacity-building of patients, policymakers, planners and researchers to support mental health system strengthening.
- Any country that is envisioning the integration of mental health into primary healthcare should review the requirements and processes across the health system building blocks. This paper provides guidance around this process.
- Ensure that routine health information systems include mental health indicators so that mental healthcare needs and services can be routinely monitored.

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